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1BM19CS187
D2

BOOK DEALER

```
create database bookdb;

use bookdb;


create table publisher (

        name varchar (20) primary key,

        phone integer,

        address varchar (20)

);

desc publisher;


create table book (

        book_id integer primary key,

        title varchar (20),

        pub_year varchar (20),

        publisher_name varchar (20),

        foreign key (publisher_name) references publisher (name) on delete cascade

);

desc book;


create table book_authors (

        author_name varchar (20),

        book_id integer,

        foreign key (book_id) references book (book_id) on delete cascade,

        primary key (book_id, author_name)

);
```

```
desc book_authors;


create table library_branch (

        branch_id integer primary key,

        branch_name varchar (50),

        address varchar (50)

);

desc library_branch;


create table book_copies (

        no_of_copies integer,

        book_id integer,

        branch_id integer,

        foreign key (book_id) references book (book_id) on delete cascade,

        foreign key (branch_id) references library_branch (branch_id) on delete cascade,

        primary key (book_id, branch_id)

);

desc book_copies;


create table card (

        card_no integer primary key

);

desc card;

create table book_lending (

        date_out date,

        due_date date,

    book_id integer,

        branch_id integer,

    card_no integer,

        foreign key (book_id) references book (book_id) on delete cascade,

        foreign key (branch_id) references library_branch (branch_id) on delete cascade,
```

foreign key (card_no) references card (card_no) on delete cascade,

primary key (book_id, branch_id, card_no)

);

desc book_lending;

insert into publisher values ('mcgraw-hill', 99890, 'bangalore');

insert into publisher values ('pearson', 98890, 'newdelhi');

insert into publisher values ('random house', 74556, 'hydrabad');

insert into publisher values ('hachette livre', 897086, 'chenai');

insert into publisher values ('grupo planeta', 77561, 'bangalore');

select * from publisher;

name	phone	address
grupo planeta	77561	bangalore
hachette livre	897086	chenai
mcgraw-hill	99890	bangalore
pearson	98890	newdelhi
random house	74556	hydrabad
NULL	NULL	NULL

insert into book values (1,'dbms','01-2017', 'mcgraw-hill');

insert into book values (2,'adbms','06-2016', 'mcgraw-hill');

insert into book values (3,'cn','09-2016', 'pearson');

insert into book values (4,'cg','09-2015', 'grupo planeta');

insert into book values (5,'os','05-2016', 'pearson');

select * from book;

book_id	title	pub_year	publisher_name
1	dbms	01-2017	mcgraw-hill
2	adbms	06-2016	mcgraw-hill
4	cg	09-2015	grupo planeta
5	os	05-2016	pearson
NULL	NULL	NULL	NULL

insert into book_authors values ('navathe', 1);

insert into book_authors values ('navathe', 2);

insert into book_authors values ('tanenbaum', 3);

insert into book_authors values ('edward angel', 4);

insert into book_authors values ('galvin', 5);

select * from book_authors;

author_name	book_id
navathe	1
navathe	2
edward angel	4
galvin	5
NULL	NULL

insert into library_branch values (10,'rr nagar','bangalore');

insert into library_branch values (11,'rnsit','bangalore');

insert into library_branch values (12,'rajaji nagar', 'bangalore');

insert into library_branch values (13,'nitte','mangalore');

insert into library_branch values (14,'manipal','udupi');

select * from library_branch;

branch_id	branch_name	address
10	rr nagar	bangalore
11	rnsit	bangalore
12	rajaji nagar	bangalore
13	nitte	mangalore
14	manipal	udupi
NULL	NULL	NULL

insert into book_copies values (10, 1, 10);

insert into book_copies values (5, 1, 11);

insert into book_copies values (2, 2, 12);

insert into book_copies values (5, 2, 13);

insert into book_copies values (7, 3, 14);

insert into book_copies values (1, 5, 10);

insert into book_copies values (3, 4, 11);

select * from book_copies;

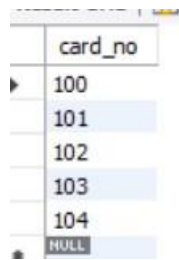| no_of_copies	book_id	branch_id
10	1	10
5	1	11
2	2	12
5	2	13
3	4	11
1	5	10

insert into card values (100);

insert into card values (101);

insert into card values (102);

insert into card values (103);

insert into card values (104);

select * from card;

card_no
100
101
102
103
104
NULL

insert into book_lending values ('01-01-17','01-06-17', 1, 10, 101);
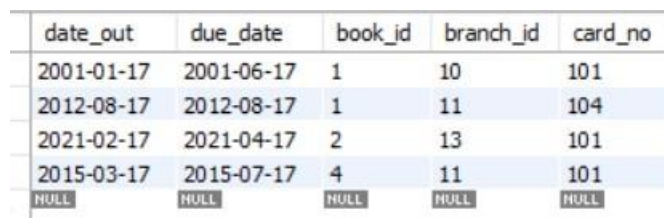
insert into book_lending values ('11-01-17','11-03-17', 3, 14, 101);

insert into book_lending values ('21-02-17','21-04-17', 2, 13, 101);

insert into book_lending values ('15-03-17','15-07-17', 4, 11, 101);

insert into book_lending values ('12-08-17','12-08-17', 1, 11, 104);

select * from book_lending;

date_out	due_date	book_id	branch_id	card_no
2001-01-17	2001-06-17	1	10	101
2012-08-17	2012-08-17	1	11	104
2021-02-17	2021-04-17	2	13	101
2015-03-17	2015-07-17	4	11	101
NULL	NULL	NULL	NULL	NULL

-- Query 1

select b.book_id, b.title, b.pub_year, b.publisher_name, bc.no_of_copies, ba.author_name, lb.branch_name from book b, book_authors ba,

library_branch lb, book_copies bc where b.book_id = ba.book_id and b.book_id = bc.book_id and lb.branch_id = bc.branch_id;

book_id	title	pub_year	publisher_name	no_of_copies	author_name	branch_name
5	os	05-2016	pearson	1	galvin	rr nagar
1	dbms	01-2017	mcgraw-hill	10	navathe	rr nagar
4	cg	09-2015	grupo planeta	3	edward angel	rnsit
1	dbms	01-2017	mcgraw-hill	5	navathe	rnsit
2	adbms	06-2016	mcgraw-hill	2	navathe	rajaji nagar
2	adbms	06-2016	mcgraw-hill	5	navathe	nitte

-- Query 2

select card_no from book_lending where year(date_out) >17 and month(date_out)<7 group by card_no having count(card_no) >2 ;

card_no
101

-- Query 3

delete from book where book_id = 3;

select * from book;

book_id	title	pub_year	publisher_name
1	dbms	01-2017	mcgraw-hill
2	adbms	06-2016	mcgraw-hill
4	cg	09-2015	grupo planeta
5	os	05-2016	pearson
NULL	NULL	NULL	NULL

select * from book_authors;

author_name	book_id
navathe	1
navathe	2
edward angel	4
galvin	5
NULL	NULL

select * from book_copies;

no_of_copies	book_id	branch_id
10	1	10
5	1	11
2	2	12
5	2	13
3	4	11
1	5	10
NULL	NULL	NULL

select * from book_lending;

date_out	due_date	book_id	branch_id	card_no
2001-01-17	2001-06-17	1	10	101
2012-08-17	2012-08-17	1	11	104
2021-02-17	2021-04-17	2	13	101
2015-03-17	2015-07-17	4	11	101
NULL	NULL	NULL	NULL	NULL

-- Query 4

select * from book order by substring(pub_year, 4, 4);

-- select b1.book_id, b1.title, b1.pub_year

-- from book b1

-- inner join book b2 on substring(b1.pub_year, 4, 4) = substring(b2.pub_year, 4, 4) and b1.book_id <> b2.book_id;

book_id	title	pub_year	publisher_name
4	cg	09-2015	grupo planeta
2	adbms	06-2016	mcgraw-hill
5	os	05-2016	pearson
1	dbms	01-2017	mcgraw-hill
NULL	NULL	NULL	NULL

create view q4_view as select pub_year from book;

select * from q4_view;

pub_year
01-2017
06-2016
09-2015
05-2016

-- Query 5

create view q5_view as select b.book_id, b.title, bc.no_of_copies from book b,

book_copies bc where b.book_id = bc.book_id;

select * from q5_view;